CHEMFAB

Chemfab Corporation
Water Street, P.O. Box 476
North Bennington, Vermont 05257 U.S.A.
Telephone: 802-447-1131
FAX 802-447-1130

February 21, 1996

Brian Fitzgerald
VT Agency of Natural Resources
Air Pollution Control Div.
103 South Main St.
Waterbury, VT 05671-0402

Dear Brian:

Enclosed yu will find a revised page two which is being provided to correct an error in the number of towers operated by Chemfab at N. Bennington, VT.

We are in reciept of your letter acknowledging the application for a construction permit. The final paragraph of the text sets forward the monitoring parameters we propose under the operating permit program. Chemfab would appreciate comment on our proposal along with recommendations for obtaining our operating permit. Our hope is that this monitoring will meet the requirements of the operating permit program. I believe information generally given in the construction permit meets the other requirements for an operating permit.

Thank you for your assistance.

Sincerely,

Robert A. Prohaska
Site Technical Manager

Enc.

CERTIFICATION OF INFORMATION ACCURACY

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on information and belief formed after reasonable inquiry, the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Robert Pronaska
(Signature)

2-21-96
(Date)

ROBERT PRONASKA
(Print Name)

SITE TECHNICAL MGR
(Title)

CONSENT FOR ACCESS TO PROPERTY

I recognize that by signing this application, I am giving consent to employees of the State of Vermont to enter the subject property for the purpose of obtaining information relevant to the processing of this application. I also understand that by acceptance of a Permit, I agree to allow representatives of the State of Vermont access to the properties covered by the Permit, at reasonable times, for the purpose of ascertaining compliance with the Permit and with Vermont environmental and health statutes and regulations.

Robert Pronaska
(Signature)

2-21-96
(Date)

ROBERT PRONASKA
(Print Name)

SITE TECHNICAL MGR
(Title)

CHEMFAB

SECTION B2

ISOMETRIC OF CHEMFAB EXHAUST POINTS

CHEMFAB

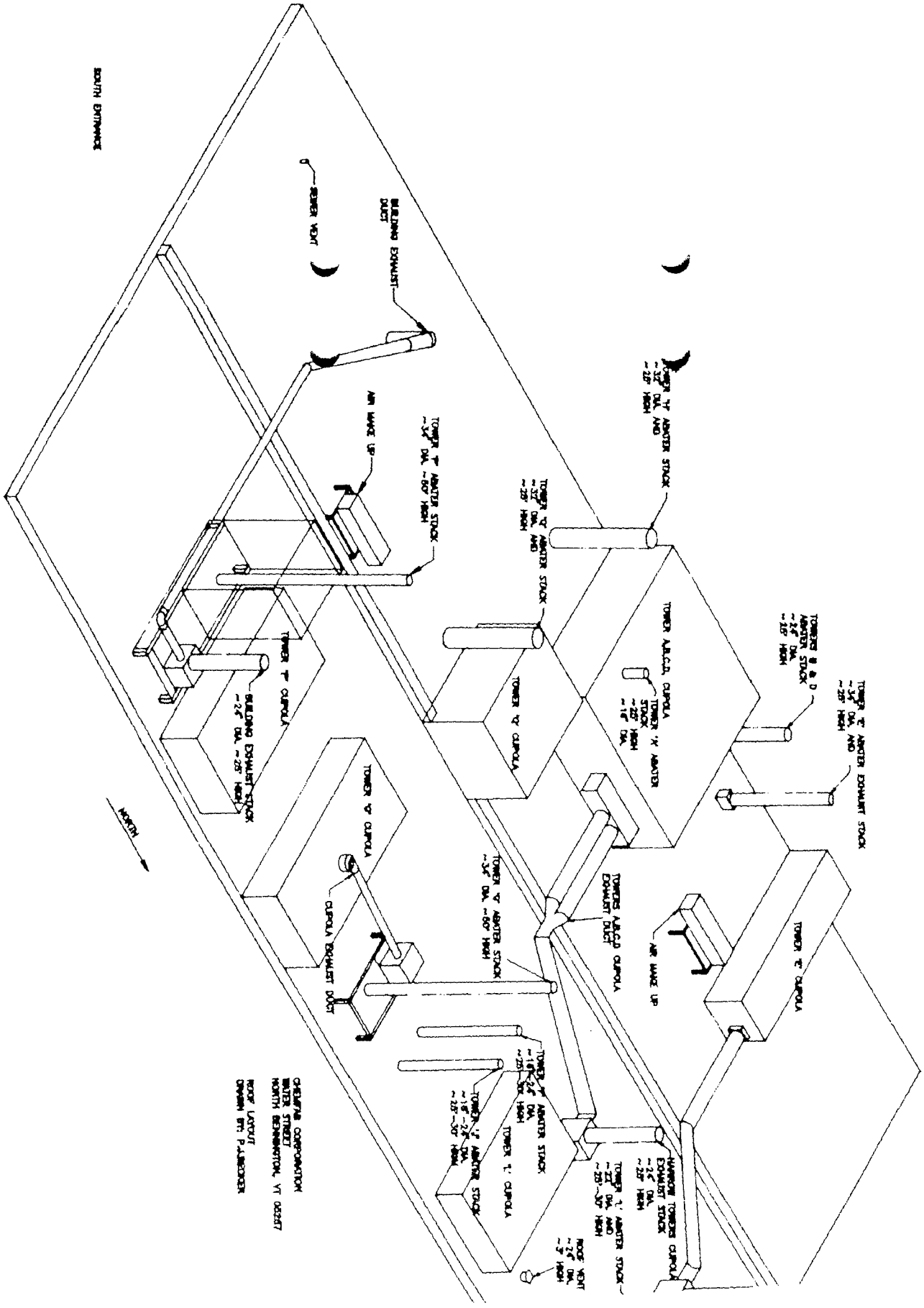
SECTION B3

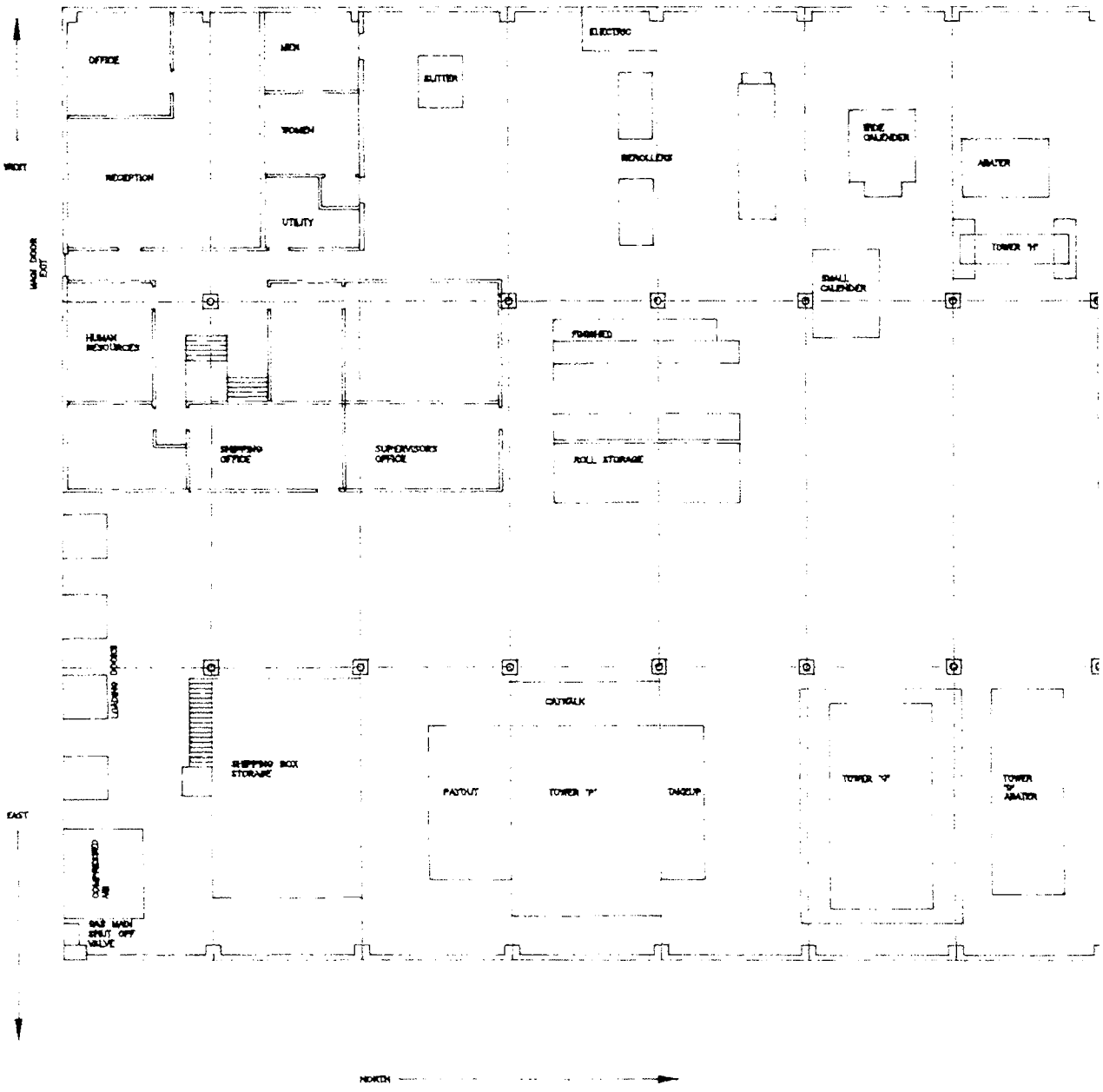
AISLE SIDE ELEVATION OF NEW TOWER Q

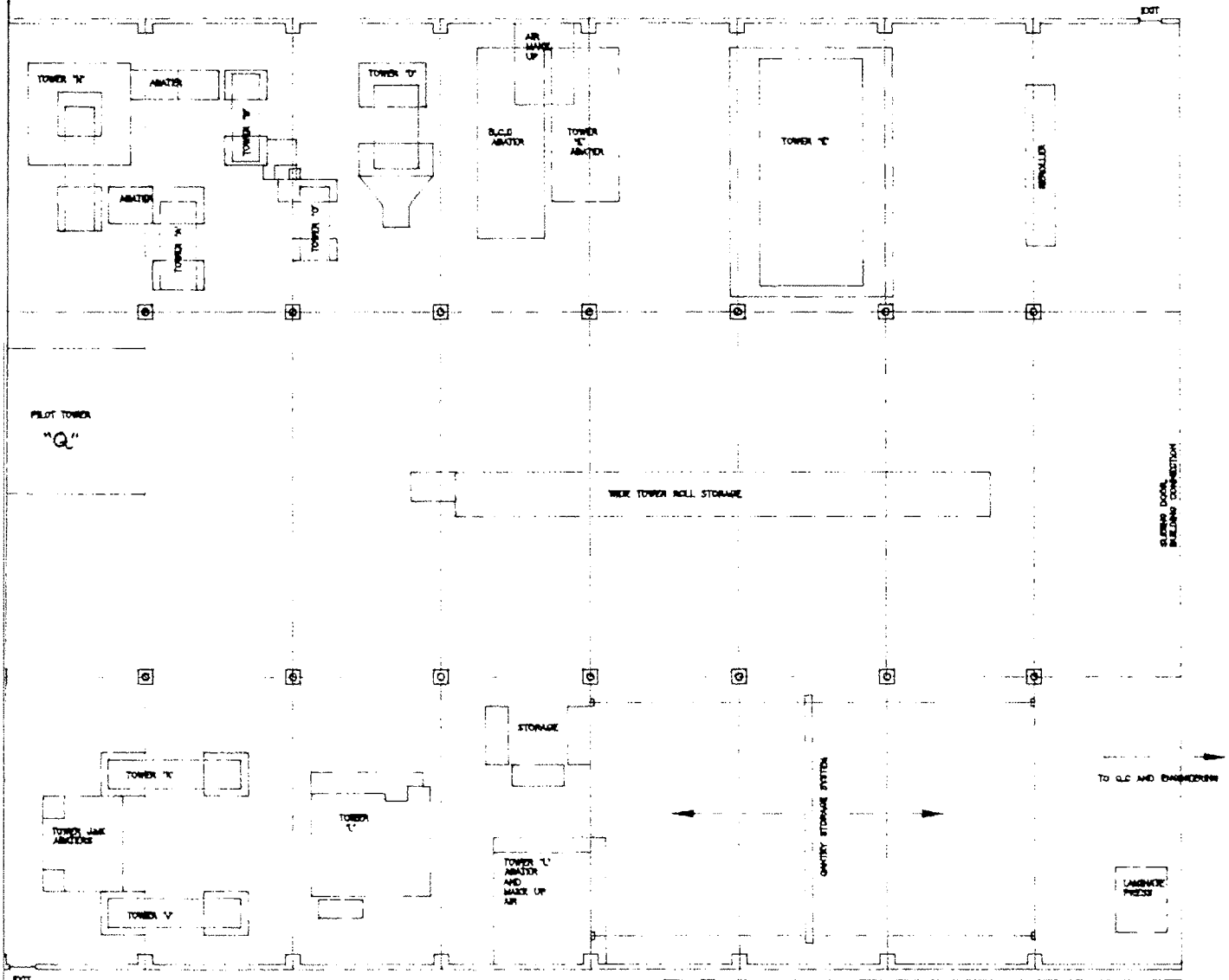
CHEMFAB

SECTION B4

FLOOR PLAN WITH NEW TOWER Q


SOUTH ENTRANCE
SEWER VENT
BUILDING EXHAUST DUCT
AIR MAKE UP
TOWER 'F' ARMSTER STACK ~ 36" DIA. ~ 60' HIGH
TOWER 'F' CUPOLA
BUILDING EXHAUST STACK ~ 24" DIA. ~ 25' HIGH
NORTH
TOWER 'D' CUPOLA
CUPOLA EXHAUST DUCT
TOWER 'A' ARMSTER STACK ~ 36" DIA. AND ~ 25' HIGH
TOWER 'C' ARMSTER STACK ~ 36" DIA. ~ 60' HIGH
TOWER 'C' CUPOLA
TOWERS A&C&D CUPOLA EXHAUST DUCT
TOWER A&C&D CUPOLA
TOWER 'A' ARMSTER STACK ~ 22" DIA. ~ 25' HIGH
TOWERS B & D ARMSTER STACK ~ 24" DIA. ~ 25' HIGH
TOWER 'B' ARMSTER EXHAUST STACK ~ 36" DIA. AND ~ 25' HIGH
AIR MAKE UP
TOWER 'E' CUPOLA
TOWER 'E' ARMSTER STACK ~ 16"-24" DIA. ~ 25'-30' HIGH
TOWER 'E' CUPOLA
TOWER 'G' ARMSTER STACK ~ 16"-24" DIA. ~ 25'-30' HIGH
HARRIOR TOWERS EXHAUST STACK ~ 24" DIA. ~ 25' HIGH
TOWER 'G' ARMSTER STACK ~ 22" DIA. AND ~ 25'-30' HIGH
ROOF VENT ~ 24" DIA. ~ 5' HIGH
CHESHIRE CORPORATION
WATER STREET
NORTH BENNINGTON, VT 05257
ROOF LAYOUT
DRAWN BY: P.J.BECKER


OFFICE
MEN
WOMEN
RECEPTION
UTILITY
SLITTER
ELECTRIC
REWOLLERS
WIDE CALENDER
ABATER
TOWER "H"
SMALL CALENDER
MAIN DOOR EXIT
WEST
HUMAN RESOURCES
SHIPPING OFFICE
SUPERVISORS OFFICE
FINISHED
ROLL STORAGE
CATWALK
SHIPPING BOX STORAGE
PAYOUT
TOWER "F"
TAKEUP
TOWER "G"
TOWER "G" ABATER
EAST
NORTH



CHEMFAB CORPORATION
NORTH BENNINGTON, VT 05257

PLANT LAYOUT

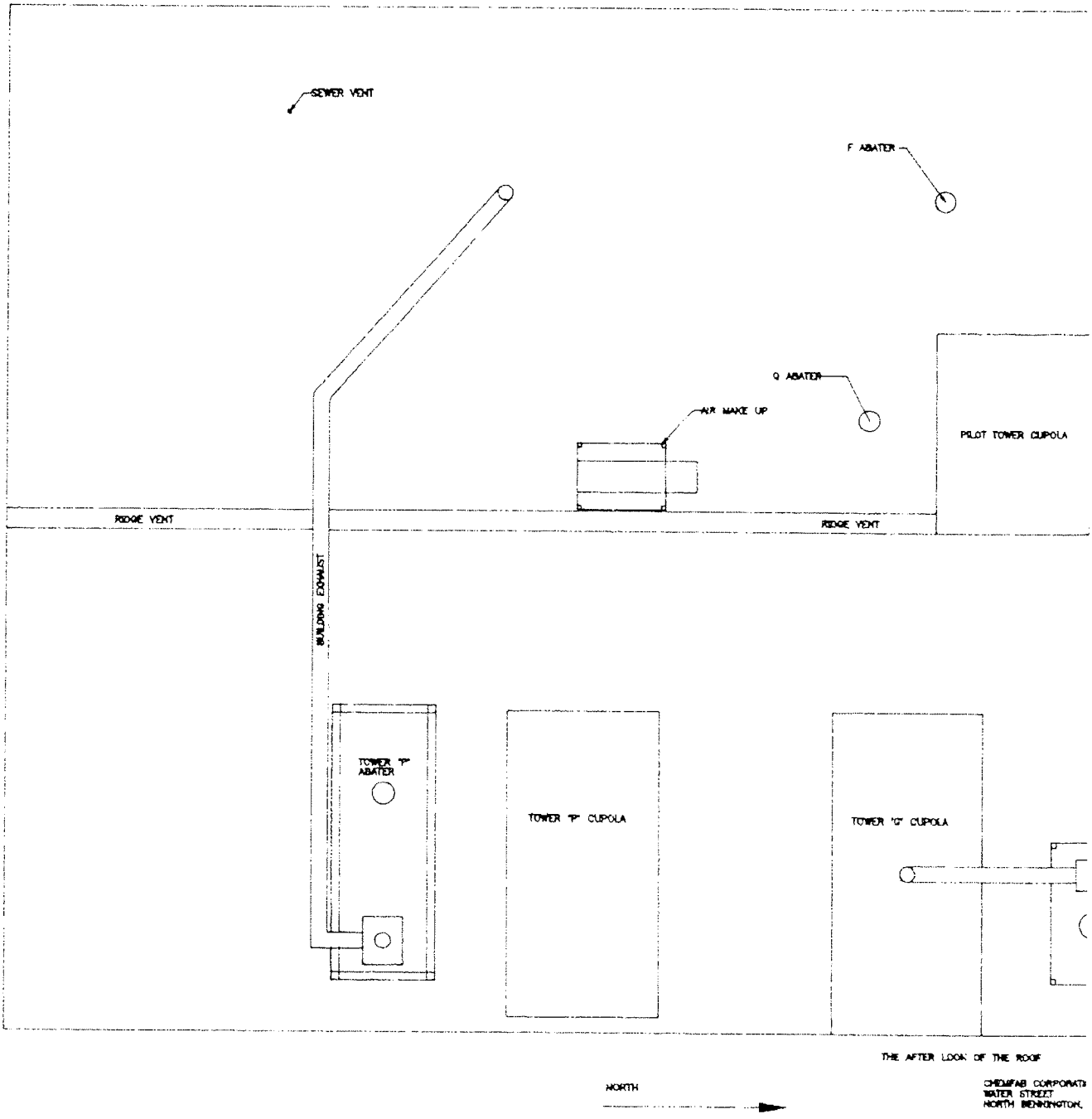
DR. BY: P.J. BECKER

DRAWING NO.

DATE: 1-30-96

SCALE:

WATER

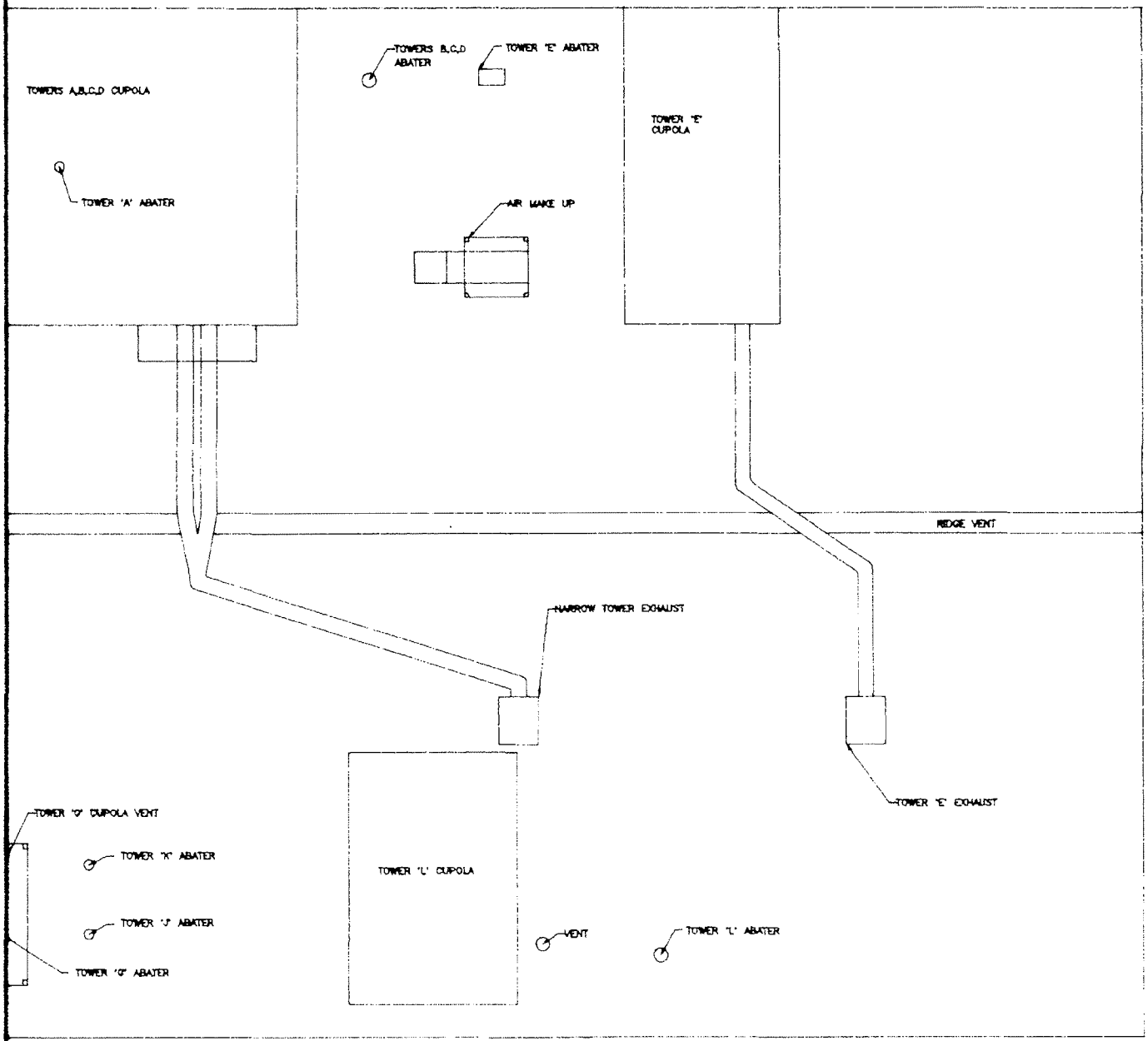


THE AFTER LOOK OF THE ROOF

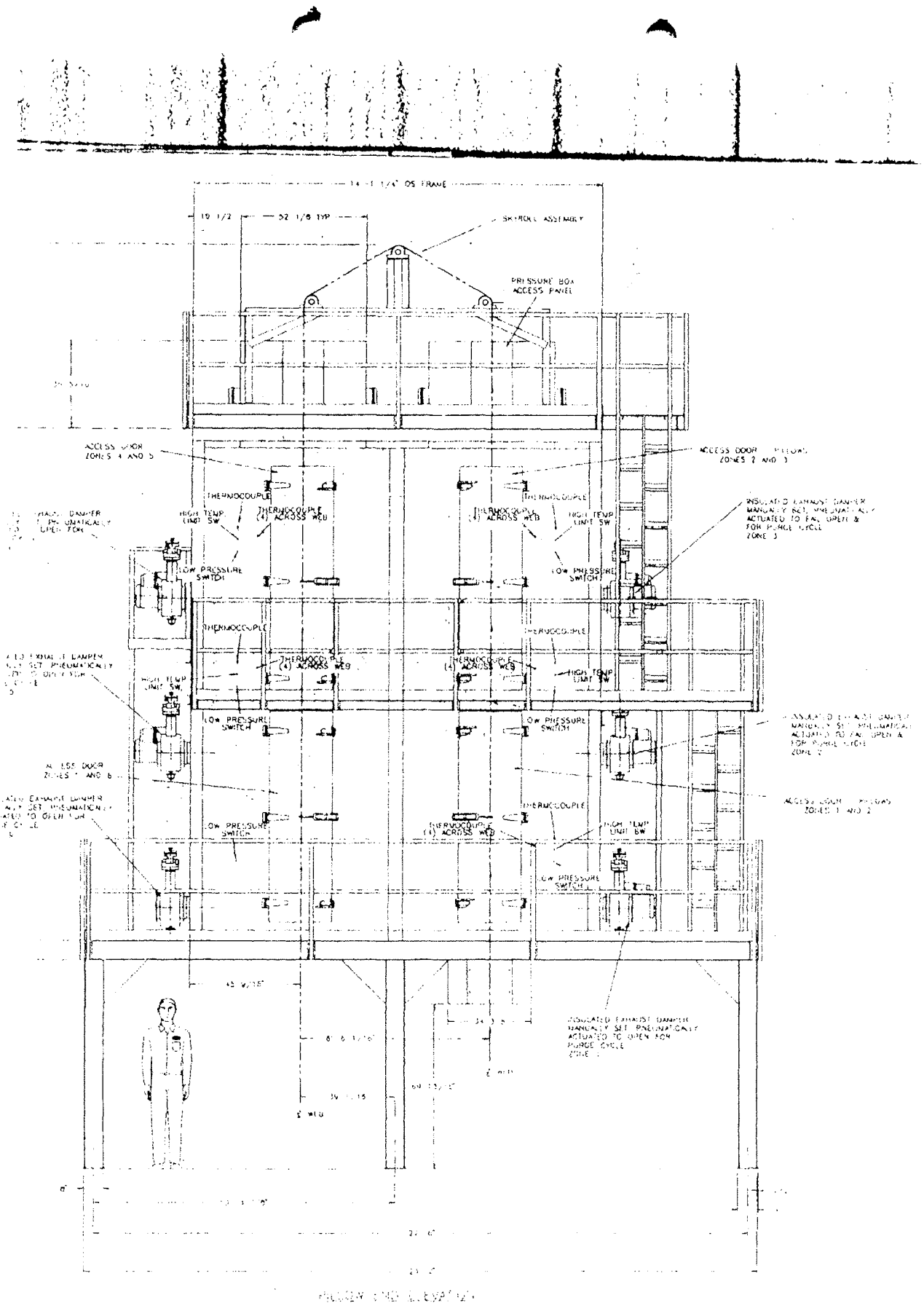
CHEMFAB CORPORATI
WATER STREET
NORTH BENNINGTON,

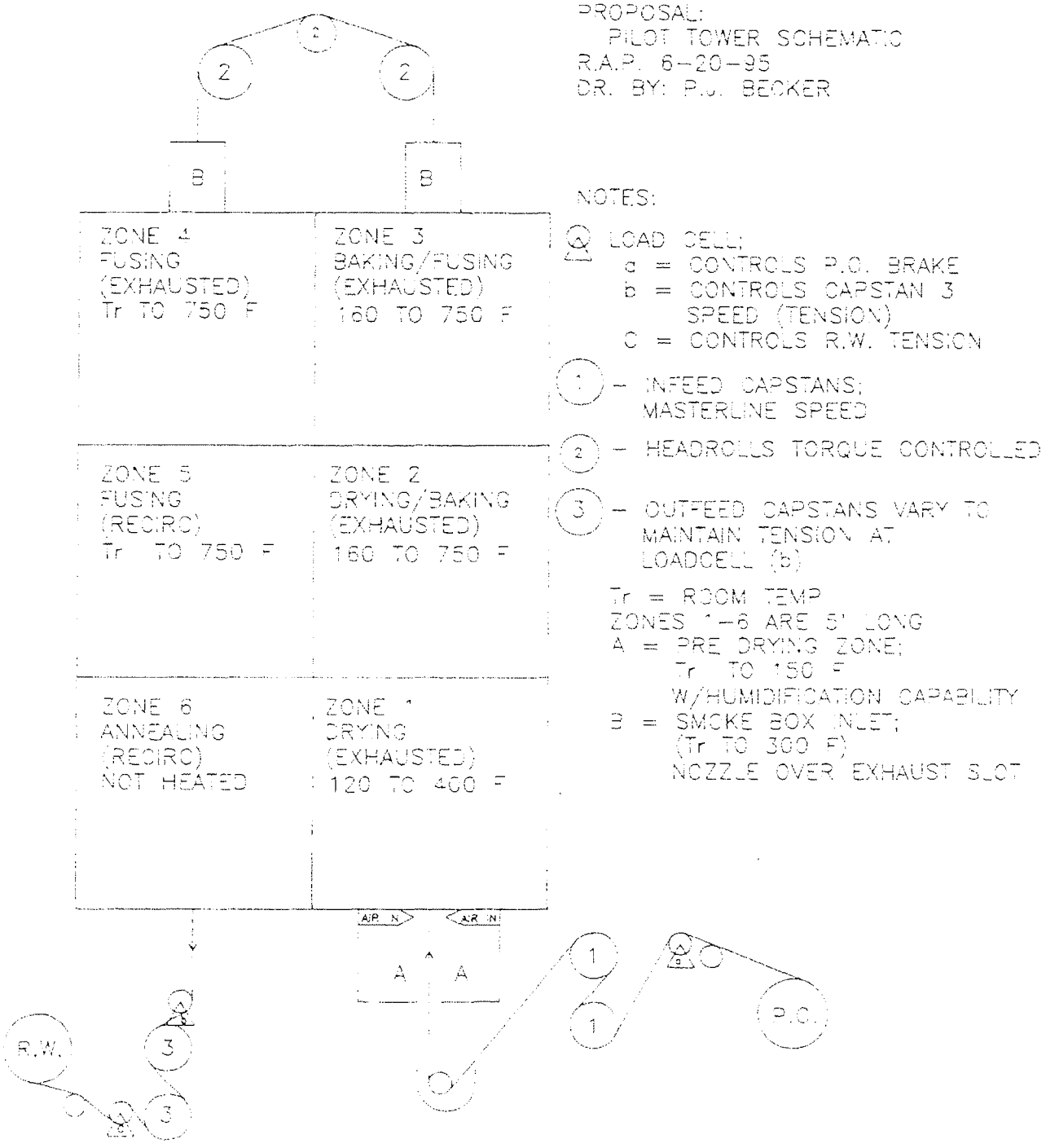
PARA

TREET


TOWERS A,B,C,D CUPOLA
TOWERS B,C,D ABATER
TOWER 'E' ABATER
TOWER 'E' CUPOLA
TOWER 'A' ABATER
AIR MAKE UP
RIDGE VENT
NARROW TOWER EXHAUST
TOWER 'E' EXHAUST
TOWER 'G' CUPOLA VENT
TOWER 'K' ABATER
TOWER 'J' ABATER
TOWER 'G' ABATER
TOWER 'L' CUPOLA
VENT
TOWER 'L' ABATER

CREEK


PRESSURE BOX ACCESS PANEL
THERMOCOUPLE
HIGH TEMP LIMIT SW
LOW PRESSURE SWITCH
INSULATED EXHAUST DAMPER MANUALLY SET PNEUMATICALLY ACTUATED TO FAIL OPEN & FOR PURGE CYCLE ZONE 3
ACCESS DOOR ZONES 4 AND 5
ACCESS DOOR ZONES 2 AND 3
ACCESS DOOR ZONES 1 AND 6
INSULATED EXHAUST DAMPER MANUALLY SET PNEUMATICALLY ACTUATED TO OPEN FOR PURGE CYCLE ZONE 1



CHEMFAB CORP.
PROPOSAL:
PILOT TOWER SCHEMATIC
R.A.P. 6-20-95
DR. BY: P.J. BECKER

NOTES:

(a) LOAD CELL:
a = CONTROLS P.O. BRAKE
b = CONTROLS CAPSTAN 3 SPEED (TENSION)
C = CONTROLS R.W. TENSION

(1) - INFEED CAPSTANS; MASTERLINE SPEED

(2) - HEADROLLS TORQUE CONTROLLED

(3) - OUTFEED CAPSTANS VARY TO MAINTAIN TENSION AT LOADCELL (b)

Tr = ROOM TEMP
ZONES 1-6 ARE 5' LONG
A = PRE DRYING ZONE;
Tr TO 150 F
W/HUMIDIFICATION CAPABILITY
B = SMOKE BOX INLET;
(Tr TO 300 F)
NOZZLE OVER EXHAUST SLOT

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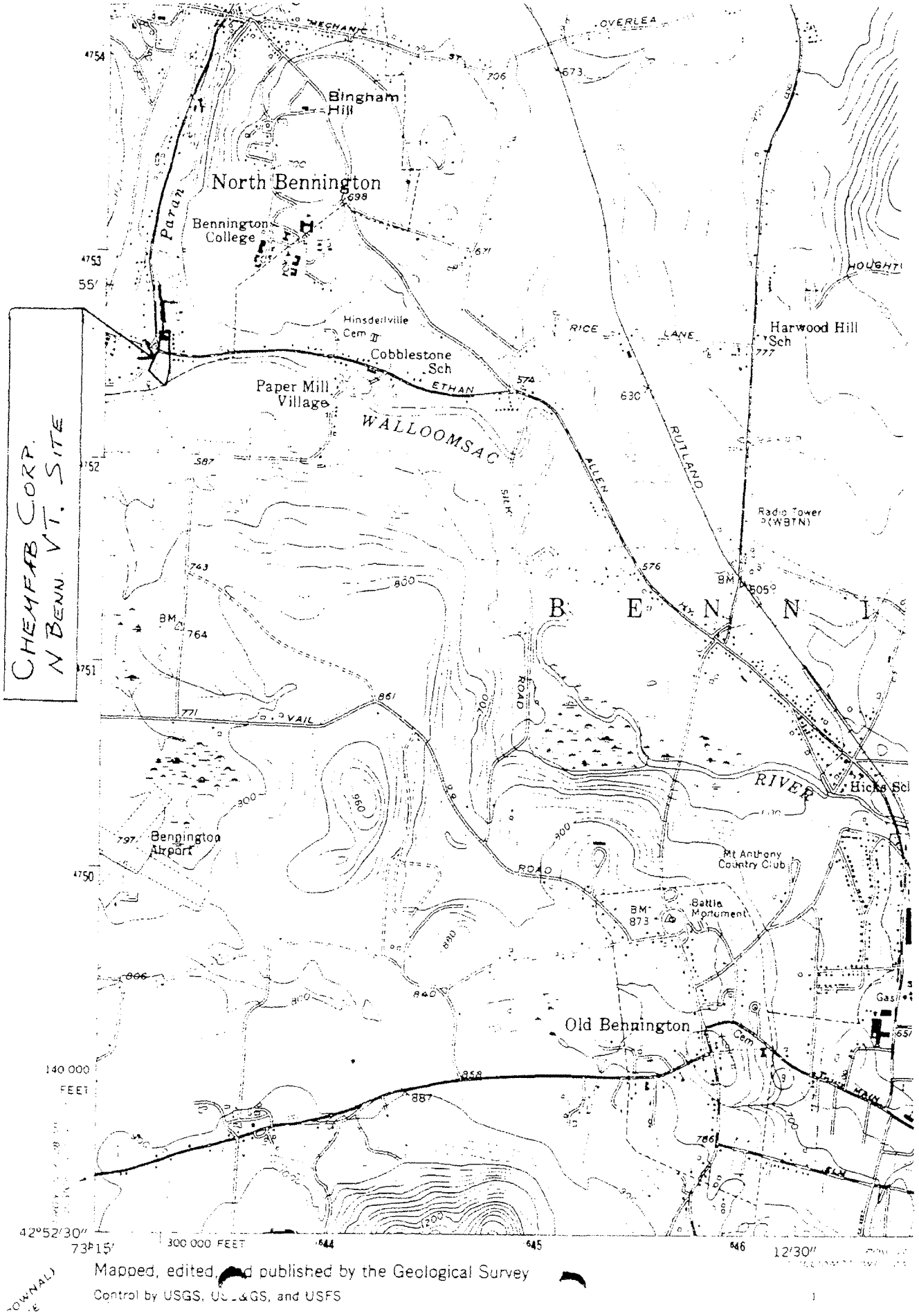
SECTION B5

TOWER Q SPECIFICATIONS


CHEMFAB CORP.
N BENN. VT. SITE
Bingham Hill
North Bennington
Bennington College
Hinsdellville Cem
Cobblestone Sch
Paper Mill Village
WALLOOMSAC
RICE LANE
Harwood Hill Sch
RUTLAND
ALLEN
Radio Tower (WBTN)
BENNI
VAIL ROAD
RIVER
Hicks Sch
Bennington Airport
Mt Anthony Country Club
Battle Monument
BM 873
Old Bennington
Cem
140 000 FEET
42°52'30"
73°15'
300 000 FEET
12'30"
Mapped, edited, and published by the Geological Survey
Control by USGS, USC&GS, and USFS

CHEMFAB

Chemfab Corporation
Water Street, P.O. Box 476
North Bennington, Vermont 05257 U.S.A.
Telephone: 802-447-1131
FAX: 802-447-1130

January 9, 1996

Mark C. Bannon, Environmental Engineer
VT Agency of Natural resources
Air Pollution Control Div.
103 South Main St.
Waterbury, VT 05671-0402

PRELIMINARY PROPOSAL

PROPOSAL DESCRIPTION: To discontinue use of propane gas fired catalytic abatement at the N. Bennington, VT (NBVT) facility of Chemfab Corporation. Stack dilution will be substituted to effectively deal with emission odor and visible plume. If effective, the net result would be a decrease in total emissions of approximately 7700 lbs. These estimates are based upon our current production rate 24 hours a day, an average of six days per week).

OBJECTIVE: To reduce regulated emissions and operating cost at Chemfab's NBVT site, while still controlling odor and visible plume.

BRIEF HISTORY: CHEMFAB Corporations's plant located in North Bennington, Vermont (NBVT) is primarily engaged in the coating of woven fiberglass textiles with Polytetrafluoroethylene (PTFE)* dispersions. The coatings consist primarily of fine particles of polytetrafluroethylene dispersed in water with surfactants. The surfactants are essentially soaps which aid in processing. After coating, heat is applied to remove water and surfactants thereby leaving the PTFE adhered to the textile. As the ingredients are heated the surfactants degrade forming an odiferous and visible aerosol which contains minute amounts of benzene. During the 1980's CHEMFAB along with the Vermont Agency of Natural Resources underwent a series of steps to reduce odor, visible plume and benzene from our emissions. At the time, the "Best Achievable Control Technology" chosen was catalytic abatement. At current production levels this technology has the following effects:

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*Teflon® is one brand name applied to this substance.

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CATALYTIC ABATEMENT DOES:

- Reduce benzene emissions from about 280 lb. per year to about 82 lb. per year.
- Increase emissions of NOX, particulate matter, carbon Monoxide and other organic compounds by about 7900 lbs. per year.
- Eliminate the visible plume from our emissions.
- Cost CHEMFAB approximately $225,000 per year, for propane gas, to operate.

CATALYTIC ABATEMENT DOES NOT:

- Reduce odor from our emissions.

Since we did not reduce the odor from our process using catalytic abatement, research was done with TRC of Hartford, CT to determine a method of reducing odor. This led to TRC's recommendation that CHEMFAB dilute the exhaust stream by five times with ambient air in a stack which would help disperse odor molecules. As a result, CHEMFAB Corporation has installed such systems on two coating lines in NBVT and on two PTFE processing lines in our Merrimack, NH facility. At NBVT odor complaints have dropped from about five per year, to less than one per year since these two lines were so outfitted.

The Merrimack, New Hampshire facility operates two PTFE processing lines without catalytic abatement and only with stack dilution systems. These systems have dispersed odor and eliminated visible plume, without use of propane gas fired abatement.

PROPOSED PLAN OF ACTION:

1) Invite representatives of the Vermont Agency of Natural Resources and the North Bennington Planning Commission to view operations in New Hampshire which incorporate only a stack dilution system to control emissions. Vermont ANR representatives will evaluate if this approach is technically feasible at the NBVT facility.

CHEMFAB

2) If feasible, and with the approval of the North Bennington planning commission, CHEMFAB, NBVT would stop applying catalytic abatement to the two coating lines which are presently outfitted with stack dilution systems. This would be done on a trial basis to verify that both odor and visible emissions were controlled by these systems. In addition, as part of an ongoing process to eliminate benzene emissions, CHEMFAB would trial dispersions containing non benzene generating surfactants on these lines. This will allow CHEMFAB to evaluate process capability and verify that these new surfactants do not emit odors which are not controlled by the stack dilution systen.

3) If step two is initiated and is successful, dilution stacks will be installed on all coating lines and catalytic abatement will be decommissioned at CHEMFAB NBVT.

SUMMARY:

To reduce overall plant emissions by 7700 lbs. and reduce fuel cost by $225000, CHEMFAB NBVT proposes to eliminate use of catalytic abaters and to substitute a stack dilution system to reduce odor and visible emissions. The proposal presented consists of three steps:

1) Verification of feasibility by the Air Pollution Control division of the Vermont Agency of Natural Resources.

2) Trial of the proposal on two coating lines at CHEMFAB NBVT resulting in the approval of the Vermont ANR air pollution control division and the North Bennington, VT planning commission.

3) If odor complaints do not increase and visible plume meets requirements, eliminate catalytic abatement in favor of stack dilution as the demonstrated best available Control Technology.

Submitted by,

Robert A. Prohaska
Site Technical Manager

cc: Ruth Janke
David Stiles
Charles Tilgner III
CF: VAP 1995 ANR.95